Cosmic Ray Anisotropy Workshop CRA2019



Contribution ID: 63

Type: not specified

Using Machine Learning to Interpret Arrival Directions of Ultra-high-energy Cosmic Rays

Tuesday, 8 October 2019 16:00 (30 minutes)

We propose a machine-learning-based method to test various hypotheses about possible sources of ultra-high-energy cosmic rays (UHECR) using their arrival directions. We test the discriminating power of the method on the recently proposed realistic UHECR origin scenario [1], assuming several particular nearby active galaxies as source candidates.

[1] Phys.Rev. D96 (2017) no.8, 083006

Primary authors: KALASHEV, Oleg (Institute for Nuclear Research RAS, Moscow, Russia); PSHIRKOV, Maxim (Moscow, INR & Sternberg Astron. Inst.); ZOTOV, Mikhail (SINP, Moscow)

Presenter: KALASHEV, Oleg (Institute for Nuclear Research RAS, Moscow, Russia)